



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0638; Product Identifier 2018-NM-016-AD]**

**RIN 2120-AA64**

**Airworthiness Directives;** Viking Air Limited (Type Certificate Previously Held by Bombardier, Inc.; Canadair Limited) Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede Airworthiness Directive (AD) 2013-11-03, which applies to certain Viking Air Limited Model CL-215-1A10 and CL-215-6B11 (CL-215T Variant) airplanes. AD 2013-11-03 requires repetitive detailed inspections for cracking of the left-hand (LH) and right-hand (RH) wing lower skin, and repair if necessary. AD 2013-11-03 was prompted by reports of a fractured wing lower rear spar cap and reinforcing strap. Since we issued AD 2013-11-03, further analysis has indicated the need for repetitive eddy current and borescope inspections. This proposed AD would require repetitive borescope inspections of the LH and RH wing lower skin and repetitive eddy current inspections of the LH and RH wing front and rear lower spar caps. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Viking Air Limited, 1959 de Havilland Way, Sidney, British Columbia V8L 5V5, Canada; telephone +1-250-656-7227; fax +1-250-656-0673; email [acs-technical.publications@vikingair.com](mailto:acs-technical.publications@vikingair.com); Internet <http://www.vikingair.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0638; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments

received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Andrea Jimenez, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7330; fax 516-794-5531.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0638; Product Identifier 2018-NM-016-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

## **Discussion**

We issued AD 2013-11-03, Amendment 39-17463 (78 FR 32353, May 30, 2013) (“AD 2013-11-03”), for certain Viking Air Limited Model CL-215-1A10 and CL-215-6B11 (CL-215T Variant) airplanes. AD 2013-11-03 requires repetitive detailed inspections for cracking of the LH and RH wing lower skin, and repair if necessary. AD 2013-11-03 resulted from reports of a fractured wing lower rear spar cap and reinforcing strap. We issued AD 2013-11-03 to detect and correct cracked wing structure, which could result in failure of the wing.

## **Actions Since AD 2013-11-03 was Issued**

Since we issued AD 2013-11-03, an operator reported damage to the wing lower skin and rear spar of an airplane. This damage was noticed 95 flight hours after an ultrasonic inspection. Further analysis by the airplane manufacturer and the FAA has determined that the ultrasonic inspection might not have been adequate to detect a crack in the spar cap, and there is a need for repetitive eddy current and borescope inspections.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive, CF-2013-11R1, dated October 30, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Viking Air Limited Model CL-215-1A10 and CL-215-6B11 (CL-215T Variant) airplanes. The MCAI states:

While performing modifications on a CL-215-1A10 aeroplane, an operator discovered that the wing lower rear spar cap and reinforcing strap were fractured at Wing Stations (WS) 49.5 and 50 respectively and the rear spar web and wing lower skin were also cracked. It is suspected that a crack initiated at the wing lower spar cap, leading to

its failure, the subsequent failure of the reinforcing strap and cracking of the spar web and wing lower skin. The damage was outside of the area addressed by the repetitive ultrasonic inspections required by [Canadian] AD CF-1992-26R2 [which corresponds to FAA AD 2012-11-04, Amendment 39-17067 (77 FR 32892, June 4, 2012)] and was found 95 hours air time after the last ultrasonic inspection.

Failure and cracking of the above-noted wing structure, if not detected, could result in failure of the wing.

In order to mitigate the unsafe condition, [Canadian] AD CF-2013-11 [which corresponds to FAA AD 2013-11-03] was released. However, further analysis has indicated the need for repetitive eddy current and borescope inspections. Therefore, Revision 1 of this [Canadian] AD mandates a repetitive detailed inspection of the wing lower skin using a borescope, changes the one-time eddy current inspection of the lower front and rear spar caps to a repetitive inspection and eliminates the one-time detailed inspection with fuel bladders removed.

The requirements of [Canadian] AD CF-1992-26R2 remain applicable.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0638.

#### **Related Service Information under 1 CFR part 51**

Bombardier has issued Alert Service Bulletin 215-A558, Revision 3, dated June 3, 2016. This service information describes procedures for detecting cracks using repetitive borescope inspections of the LH and RH wing lower skin and repetitive eddy current inspections of the LH and RH wing front and rear lower spar caps. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES

section.

### **FAA’s Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

### **Costs of Compliance**

We estimate that this proposed AD affects 4 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Borescope and eddy current inspections	8 work-hours X \$85 per hour = \$680 per inspection cycle	\$0	\$680 per inspection cycle	\$2,720 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s

authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866,

2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

3. Will not affect intrastate aviation in Alaska, and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2013-11-03, Amendment 39-17463 (78 FR 32353, May 30, 2013), and adding the following new AD:

**Viking Air Limited (Type Certificate Previously Held by Bombardier, Inc.; Canadair Limited):** Docket No. FAA-2018-0638; Product Identifier 2018-NM-016-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2013-11-03, Amendment 39-17463 (78 FR 32353, May 30, 2013) (“AD 2013-11-03”).

**(c) Applicability**

This AD applies to the Viking Air Limited (Type Certificate previously held by Bombardier, Inc.; Canadair Limited) airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category.

(1) Model CL-215-1A10 airplanes, serial numbers (S/Ns) 1001 through 1125 inclusive.

(2) Model CL-215-6B11 (CL-215T Variant) airplanes, S/Ns 1056 through 1125 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by reports of cracking of the wing lower skin and rear spar. We are issuing this AD to address cracked wing structure, which could result in failure of the wing.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Repetitive Borescope Inspection**

Within 50 flight hours after the effective date of this AD: Using a borescope, do a detailed inspection for cracking of the left-hand (LH) and right-hand (RH) wing lower skin between wing station (WS) 45.00 and 51.00, in accordance with Part A of Bombardier Alert Service Bulletin 215-A558, Revision 3, dated June 3, 2016. Repeat the inspection thereafter at intervals not to exceed 50 flight hours until the initial eddy current inspection required by paragraph (h) of this AD has been accomplished. After accomplishment of the initial eddy current inspection required by paragraph (h) of this AD, the borescope inspection interval required by this paragraph may be extended to 300 flight hours.

**(h) Repetitive Eddy Current Inspections**

Within 300 flight hours after the effective date of this AD: Do an eddy current inspection for cracking of the LH and RH wing front and rear lower spar caps, in accordance with Parts C-1 and C-2 of Bombardier Alert Service Bulletin 215-A558, Revision 3, dated June 3, 2016. Repeat the inspection thereafter at intervals not to exceed 300 flight hours.

**(i) Corrective Actions**

If any crack, as defined in Bombardier Alert Service Bulletin 215-A558, Revision 3, dated June 3, 2016, is found during any inspection required by paragraph (g) or paragraph (h) of this AD: Before further flight, repair using a method approved by the FAA; or Transport Canada Civil Aviation (TCCA); or Viking Air Limited's TCCA

Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(j) Credit for Previous Actions**

This paragraph provides credit for the initial inspections required by paragraphs (g) and (h) of this AD if those actions were performed before the effective date of this AD using Bombardier Alert Service Bulletin 215-A558, Revision 1, dated January 10, 2014; or Bombardier Alert Service Bulletin 215-A558, Revision 2, dated January 17, 2014.

**(k) No Reporting Requirement**

Although Bombardier Alert Service Bulletin 215-A558, Revision 3, dated June 3, 2016, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(l) Other FAA AD Provisions**

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method

approved by the Manager, New York ACO Branch, FAA; or TCCA; or Viking Air Limited's TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2013-11R1, dated October 30, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0638.

(2) For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7330; fax 516-794-5531.

(3) For service information identified in this AD, contact Viking Air Limited, 1959 de Havilland Way, Sidney, British Columbia V8L 5V5, Canada; telephone +1-250-656-7227; fax +1-250-656-0673; email [acs-technical.publications@vikingair.com](mailto:acs-technical.publications@vikingair.com); Internet <http://www.vikingair.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on July 23, 2018.

James Cashdollar,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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